REMARKS

Claims 1, 2, 5-33, and 36-59 are all the claims pending in the application. Claims 1, 2, 7-12, 15-18, 21-33, 38-43, 46-49, and 52-59 remain rejected on the previous grounds of record. Claims 5, 6, 13, 14, 19, 20, 36, 37, 44, 45, 50, and 51 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

I.   Claim Rejections - 35 U.S.C. § 103

Claims 1, 2, 7-12, 15-18, 21-33, 38-43, 46-49, and 52-59 remain rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over U.S. Patent No. 6,697,352 to Ludwig et al. ("Ludwig") in view of U.S. Patent No. 6,618,383 to Tomlins ("Tomlins"), in further view of U.S. Patent No. 6,154,780 to Zhu ("Zhu"). Applicant respectfully traverses the rejection as follows.

A.   Claims 1, 2, 29, 30, 32, and 33

Claim 1 recites,

> A method of transmitting a bit stream in a communication network from a first terminal to a second terminal, the method comprising:
>   (a) coding source data into the bit stream using a predetermined type of coding;
>   (b) adding a header from each communication protocol layer to a payload while transmitting the bit stream coded in operation (a) to each communication protocol layer; and
>   (c) transmitting, from the first terminal to the second terminal, the header separately from the bit stream transmitted in the operation (b),
>   wherein in the operation (c), a bit stream, to which header information has been added by undergoing each communication protocol layer, is transmitted in an unacknowledged mode protocol, and only the header information in the bit stream is separately transmitted in an acknowledged mode protocol.

In rejecting claim 1, the Examiner maintains that Ludwig teaches that "a bit stream...is transmitted in an unacknowledged mode protocol, an only the header information in the bit stream is...transmitted in an acknowledged mode protocol." The Examiner concedes that Ludwig does not disclose transmitting, from the first terminal to the second terminal, the header separately from a bit stream and only the header information in the bit stream is separately transmitted. However, the Examiner contends that Tomlins cures the deficient teaching of Ludwig in this regard.

With respect to Ludwig, the Examiner cites col. 15, lines 50-56 as allegedly teaching that a bit stream is transmitted in an unacknowledged mode. This portion of the reference teaches that before a sender begins transmitting packets in an unnumbered (*i.e.*, unacknowledged) mode, the sender must make sure that all previously transmitted numbered (*i.e.*, acknowledged) mode packets have been acknowledged by the receiver. *See* Ludwig at col. 15, lines 52-56. The Examiner cites col. 4, lines 13-22, and col. 14, lines 66-67 of Ludwig as allegedly teaching that only the header information in the bit stream is transmitted in an acknowledged mode protocol. However, col. 4, lines 13-22 of Ludwig merely describes a numbered mode in which a receiving peer will send an acknowledgement message to the sending peer when a packet has been received correctly. If the sending peer does not receive an acknowledgement message from the receiving peer, the sending peer will resend the packet. Furthermore, col. 14, lines 66-67 of Ludwig merely teaches an example in which only numbered mode packets are transmitted.

In other words, Ludwig merely teaches that packets (which includes both the header and bit stream) may be transmitted in either the numbered (*i.e.*, acknowledged) mode or the unnumbered (*i.e.*, unacknowledged) mode. As the Examiner concedes, Ludwig fails to teach or suggest that the header and bit stream are transmitted separately. In addition, Ludwig fails to

teach or suggest that the bit stream is transmitted in an unacknowledged mode protocol, and only

the header information is separately transmitted in an acknowledged mode protocol. At best,

Ludwig only teaches that both the header and the bit stream are either transmitted in the

numbered or unnumbered mode.

With respect to Tomlins, the Examiner cites col. 2, lines 51-62 and Figures 2 and 7, as

allegedly teaching transmitting, from the first terminal to the second terminal, the header

separately from a bit stream and only the header information in the bit stream is separately

transmitted. More specifically, col. 2, lines 51-62 of Tomlins teaches "segmenting the

communications traffic into micro-packets each consisting of a payload and a header containing

control information, and transmitting said payload and control information in parallel over

separate serial lines." That is, Tomlins may teach transmitting a payload and a header separately,

however, Tomlins is silent with respect to the mode (e.g., acknowledged or unacknowledged) in

which the payload and header are transmitted.

Therefore, combining the teachings of Ludwig and Tomlins results in a system in which a

payload and a header may be separately transmitted, but both are transmitted in the same mode.

Thus, Ludwig and Tomlins, taken individually or in combination, fail to teach or suggest "a bit

stream, to which header information has been added by undergoing each communication

protocol layer, is transmitted in an unacknowledged mode protocol, and only the header

information in the bit stream is separately transmitted in an acknowledged mode protocol."

Since Zhu fails to cure the deficient teachings of Ludwig and Tomlins in this regard,

Applicant submits that claim 1 is patentable over the combination of Ludwig, Tomlins, and Zhu

because the cited references fail to teach or suggest all of the features of claim 1. Since claims 2,

29, 30, 32, and 33 recite features similar to those discussed above in conjunction with claim 1,

Applicant submits that such claims are patentable for at least reasons similar to those set forth for claim 1.

B.   Claims 7-12, 15-18, 21-28, 31, 38-43, 46-49, and 52-59

Since claims 7, 9-11, 15, 17, 21, 23, 25 and 27 are dependent upon claim 1, claims 8, 12, 16, 18, 22, 24, 26 and 28 are dependent upon claim 2, claim 31 is dependent upon claim 30, claims 38, 40-42, 46, 48, 52, 54, 56 and 58 are dependent upon claim 32, and claims 39, 43, 47, 49, 53, 55, 57 and 59 are dependent upon claim 33, Applicant submits that such claims are patentable at least by virtue of their respective dependencies.

II.   Allowable Subject Matter

Applicant thanks the Examiner for indicating that claims 5, 13, 19, 6, 14, 20, 36, 44, 50, 37, 45, 51 contain allowable subject matter.

III.   Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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Date: March 26, 2009

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